

**REMARKS**

Claims 1-11 are pending in the application with Claims 1 and 5 being independent claims. Claims 1-11 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 4,858,976 to Stoll in view of U.S. Patent Application Publication No. 2002/0113181 to Zou and Korean Patent Registration No. KR 20-0302081 to Min-Woo Choi, and in further view of U.S. Patent No. 6,856,761 to Doran.

Regarding the §103(a) rejection of independent Claims 1 and 5, these claims are patentable over Stoll, Zou, Choi, and Doran. At the very least, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest alone or in combination, “a disk-type suction plate made of soft synthetic resin ... having a first diameter” and “a vacuum wall being made of gel-type polyurethane and formed at the edge of the pressing plate, and having a second diameter greater than the first diameter, the vacuum wall filling the fine cracks or the indented portions during the adhering of the vacuum fixer onto the adhered surface.”

As indicated above, Claims 1 and 5 both refer to a suction plate having a first diameter and a vacuum wall having a second diameter greater than the first diameter. In other words, the diameter of the vacuum wall is greater than the diameter of the suction plate. For example, FIG. 3 of the present application illustrates a close-up view of a suction plate 20 surrounded by a vacuum wall 11 having a diameter greater than a diameter of the suction plate 20.

Regarding Stoll, the Examiner compares the disk-type suction plate (2) of Stoll with the suction plate of Claims 1 and 5, and further compares a protrusion (19) from the disk-type suction plate (2) to the vacuum wall of Claims 1 and 5. (Final Office Action, page 3). However, as shown in FIG. 1 of Stoll, the protrusion (19) cited by the Examiner is not a vacuum wall, but is merely a portion of the disk-type suction plate (2) itself.

Therefore, the protrusion (19) of Stoll, since it is a part of the disk-type suction plate (2), cannot have a diameter greater than that of the disk-type suction plate (2).

Further, the Examiner asserts, “it would have been obvious to make the vacuum wall of Stoll of gel type polyurethane...to tightly seal and achieve vacuum suction as taught by Choi.” (Final Office Action, page 4). The Examiner further asserts that Choi teaches that it is known to use polyurethane for suction cups. (Final Office Action, page 2, lines 9-12). However, the above-quoted limitation of Claims 1 and 5 do not merely refer to materials used for a disc-type suction plate, but further refer to materials used for a vacuum wall. Therefore, any asserted teachings of Choi regarding a suction plate do not teach, disclose, or suggest materials regarding a vacuum wall. Therefore, since Choi merely refers to a suction cup, but not a vacuum wall having a diameter greater than the suction cup, Choi does not teach, disclose, or suggest that a vacuum wall is made of a gel-type polyurethane.

Regarding the limitation, “the vacuum wall filling the fine cracks or the indented portions during the adhering of the vacuum fixer onto the adhered surface,” the Examiner asserts that the Abstract of Doran teaches this feature, with reference to a “flexible closed-cell foam pad.” (Final Office Action, page 4). However, FIGs. 4 and 5 of Doran show that the annular foam pad 16 is located within and underneath a mouth 15 of a suction cup 6. Therefore, the foam pad 16 of Doran does not have a diameter greater than the mount 15 of the suction cup 6, and therefore does not correspond to the vacuum wall of Claims 1 and 5 of the present application. Therefore, Doran does not teach, disclose, or suggest the above-quoted limitation of Claims 1 and 5.

For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of independent Claims 1 and 5. Therefore, independent Claims 1 and 5 are patentable over Stoll, Zou, Choi, and

Doran. Accordingly, withdrawal of the §103(a) rejection of Claims 1 and 5 is respectfully requested.

Regarding the rejection of dependent Claim 6, this claim is also patentable over Stoll, Zou, Choi, and Doran. The Examiner asserts that it would have been obvious to use a viscosity of 150-250 cps in view of Choi. (Final Office Action, page 4). However, it is noted that Choi does not refer to urethane with respect to vacuum walls, and further does not teach, disclose or suggest any range of viscosity. The Examiner asserts that were general conditions of a claim are disclosed in the prior art, discovering optimum or workable ranges involves only routine skill in the art. For example, in the case cited by the Examiner (*In re Aller*, 105 USPQ 233), the cited reference provided explicit temperature and concentration ranges for a material. However, in the present case, since Choi does not provide any disclosure regarding viscosity ranges, Choi does not teach, disclose, or suggest the general conditions for the claim. Further, as described in the Specification of the present application, the particular range is a range critical for operation. (see Specification, page 4, line 30-page 5, line 2). As stated in MPEP §2144.05 section III, evidence that a particular range is critical rebuts a prima facie case of obviousness. (see MPEP §2144.05, citing *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990)).

The Examiner further asserts, “It is old and well known in the art that the vacuum wall of a suction initial connect with surface and creates a vacuum throughout, this it would have been obvious...to combine teaching of Doran with Stoll as modified to have a suction cup that can work on irregular or rough surfaces.” (Final Office Action, pages 4-5). However, the Examiner’s assertions regarding vacuum walls are not supported by the cited references and are therefore Official Notice.

With respect to the rejection of the claims, Applicant finds nothing, and the Office

Action also did not provide a citation to the cited art in support of, an alleged teaching or suggestion of the above-recited features of Claim 6. Rather, Office Action appears to be taking Office Notice that these features are allegedly obvious. Applicant respectfully submits that the application of Official Notice in the outstanding Office Action is improper.

With respect to Official Notice, the MPEP states that “such rejections should be judiciously applied” (see MPEP § 2144.03). Applicant notes that contrary to the caution advised by the MPEP, in this case, the Office Action liberally applied Official Notice to a majority of the claims for various conclusory reasons that are not supported by the record. The MPEP goes on to mandate that “Official notice without documentary evidence to support an [E]xaminer’s conclusion is permissible only in some circumstances” (see MPEP § 2144.03(A)). “It would not be appropriate for the [E]xaminer to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of **instant and unquestionable** demonstration as being well-known” (see *Id.*, emphasis added). “For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must **always** be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21” (*Id.*, emphasis added). Applicant notes that no such support has been provided in this case. Reviewing courts must rely on the record, and the Federal Circuit has always required that absent the case where Official Notice is “instant and unquestionable”, the Office Action must provide support and reasoning for Official Notice to be proper.

If the Examiner continues to believe that the above-recited features are well known in the art, Applicant respectfully requests that the Examiner provide a reference or references in the next Office Action allegedly offering evidence that this is the case.

If Applicant adequately traverses the examiner's assertion of official notice, the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. See 37 CFR 1.104(c)(2). See also *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697 (“[T]he Board [or examiner] must point to some concrete evidence in the record in support of these findings” to satisfy the substantial evidence test). If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding. See 37 CFR 1.104(d)(2). (MPEP § 2144.03(C)).

The legal standard for applying Official Notice under MPEP § 2144.03 is rigorous, and Applicant respectfully submits that the present application of Official Notice falls short of meeting this high standard.

Per the above, the cited documents, both individually and in combination, fail to teach or suggest all of the features of the above-rejected claims. Accordingly, it is respectfully submitted that the rejection is overcome and respectfully requested that the rejection be withdrawn.

For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of Claim 6. Therefore, Claim 6 is patentable over Stoll, Zou, Choi, and Doran. Accordingly, withdrawal of the §103(a) rejection of Claim 6 is respectfully requested.

Regarding the §103(a) rejection of Claim 7, this claim is also patentable over Stoll, Zou, Choi, and Doran. In the rejection of Claim 7, the Examiner fails to set forth any arguments regarding the limitations of Claim 7. As stated in MPEP §707.07(d), as rejection merely based on the references and for reasons of record is not an improperly expressed rejection. Therefore, the Examiner has failed to set forth a proper rejection in

compliance with 37 C.F.R. §1.104(c)(2), which requires that an Examiner must clearly explain the pertinence of each reference.

It is maintained that the cited references do not teach, disclose, or suggest, alone or in combination, “wherein the vacuum wall is formed at the edge of the pressing plate in such a manner as to protrude outwardly from the bottom surface of the pressing plate toward the adhered surface.” For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of Claim 7. Therefore, Claim 7 is patentable over Stoll, Zou, Choi, and Doran. Accordingly, withdrawal of the §103(a) rejection of Claim 7 is respectfully requested.

Regarding the §103(a) rejection of Claim 9, this claim is also patentable over Stoll, Zou, Choi, and Doran. The Examiner asserts that Stoll teaches, “a co-centric circular saw-toothed type contact protrusion (43) formed on the inner surface of the pressing plate (Figure 1).” (Final Office Action, page 3). However, FIG. 1 of Stoll does not include a reference numeral 43, and further, Stoll does not teach, disclose, or suggest a saw-toothed type contact protrusion formed on an inner surface of a pressing plate. Zhou, Choi, and Doran do not cure the deficiencies of Stoll. For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of Claim 9. Therefore, Claim 9 is patentable over Stoll, Zou, Choi, and Doran. Accordingly, withdrawal of the §103(a) rejection of Claim 9 is respectfully requested.

Regarding the §103(a) rejection of Claim 10, this claim is also patentable over Stoll, Zou, Choi, and Doran. The Examiner asserts that Stoll teaches, “wherein the suction plate has a central part, an inclined part and a circumferential part, the circumferential part having an inclined lift surface formed on the peripheral edge of the suction plate and overlapped with an inclined compression surface of the pressing plate,

the inclined lift surface having a gradually narrowed upper portion and a gradually widened lower portion.” (Final Office Action, page 3). In the rejection, the Examiner merely generally refers to FIG. 1 of Stoll without any further explanation.

However, FIG. 2 of Stoll does not teach an inclined surface at a circumferential part of suction plate 2. Although there is a raised portion 19 to the interior of the suction, plate the Examiner already compares this raised portion to the vacuum wall of the claims. By contrast, FIG. 3 of the present application illustrates an incline 12 at a circumferential part of a suction plate 20. Therefore, Stoll does not teach, disclose, or suggest, the above-quoted limitation of Claim 10.

Zhou, Choi, and Doran do not cure the deficiencies of Stoll. For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of Claim 10. Therefore, Claim 10 is patentable over Stoll, Zou, Choi, and Doran. Accordingly, withdrawal of the §103(a) rejection of Claim 10 is respectfully requested.

Regarding the rejection of Claims 2, 3, 4, these claims are also patentable over Stoll, Zou, Choi, and Doran. In a manner similar to the rejection of Claim 6, the Examiner asserts that the respective limitations of these claims are obvious optimum or workable changes, and with respect to Claim 2, the Examiner asserts that the ranges are a mere design choice. (Final Office Action, page 5). However, as stated above regarding dependent Claim 6, the Examiner relies upon *In re Aller*, a case in which the cited reference provided ranges as a general condition of a claim. In this case, none of the cited references provide any teachings regarding the ranges as a general condition, or the particular ranges recited in the claims. Therefore, the rejections are unsupported by any evidence of record.

For at least the reasons stated above, Stoll, Zou, Choi, and Doran do not teach, disclose, or suggest, alone or in combination, all of the limitations of Claims 2, 3, and 4. Therefore, Claim 2, 3, and 4 are patentable over Stoll, Zou, Choi, and Doran. Accordingly, withdrawal of the §103(a) rejection of Claims 2, 3, and 4 is respectfully requested.

Claims 2-4 and 6-11 are dependent claims, and are believed to be in condition for allowance for at least the reasons given above with regard to their respective independent Claims 1 and 5.

Accordingly, all of the claims pending in the Application, namely, Claims 1-11 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicant's attorney at the number given below.

Respectfully submitted,



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